The Production and Archiving of Navigation and Ancillary Data for the Galileo Mission

J Miller and T C Clarke (Both at Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91 109; 818-393-0616; e-mail: jmiller@gllsvc.jpl.nasa.gov)

The Galileo Mission to Jupiter is using the SPICE formats developed by the Navigation and Ancillary Information Facility (NAIF), a node of the Planetary Data System (PDS), to archive its navigation and ancillary data. SPICE is an acronym representing the different components of the navigation and ancillary data. These data files are characterized by standard formats and standard labels which are used to automate the cataloging of the data. Software tools which are available from NAIF enhance the access and use of the data by researchers.

Two of these data file types referenced by the SPICE acronym are the “C Kernels”, representing the spacecraft pointing information, and the “E Kernels”, which represent the spacecraft sequence of events. The E Kernel file formats are currently being developed jointly by Galileo and the PDS NAIF Node. This paper describes the processes of data file production, labeling and archiving.